ENVIRONMENTAL CHEMISTS

Date of Report: November 18, 1996 Date Received: November 15, 1996 Project: Burning Table, PO #M55267

Date Samples Extracted: November 15, 1996 Date Extracts Analyzed: November 15, 1996

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

Samples Processed Using Method 3005A Results Reported as mg/L (ppm)

Sample ID	<u>Chromium</u>	Copper	<u>Nickel</u>	<u>Zinc</u>
M55267 A (West)	1.5	0.52	2.8	1.0
M55267 B (East)	18	14	21	0.36
Method Blank	<0.05	< 0.05	< 0.05	<0.05

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QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 73797 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria
Chromium	n mg/L (ppm)	1.5	1.2	22h	0-20
Copper	mg/L (ppm)	0.52	0.51	2	0-20
Nickel	mg/L (ppm)	2.8	2.4	15	0-20
Zinc	mg/L (ppm)	1.0	1.0	0	0-20

Laboratory Code: 73937 (Matrix Spike)

ha wilk, gy	Reporting	Spike	Sample	% I	Recovery	Acceptance	e Percent
Analyte:	Units	Level	Result	MS	MSD	Criteria	Difference
Chromium	mg/L (ppm)	5	1.5	91	94	80-120	3
Copper	mg/L (ppm)	5	0.52	94	100	80-120	6
Nickel	mg/L (ppm)	10	2.8	92	97	80-120	5
Zinc	mg/L (ppm)	5	1.0	95	100	80-120	5

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Rec	overy MSD	Acceptanc Criteria	Relative e Percent Difference
Chromium	mg/L (ppm)	5	102	99	80-120	3
Copper	mg/L (ppm)	5	100	96	80-120	4
Nickel	mg/L (ppm)	10	103	100	80-120	3
Zinc	mg/L (ppm)	5	104	100	80-120	4

h - The process water sample contained a high level of suspended particulates. The variability can be attributed to this sample type.

FOIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

SAMPLE CHAIN OF CUSTODY

KJ AI 11.15.96 9:03

	KAN Coppar	Works		Contact_6	Ended Thom	Pson		
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City, State, Zip Seast Phone # (206)	B2-8379	7.07.29		Date // =	15 01			
Phone w	D6-45 F1			Date_[/	/3-7(
SITE NO.		PROJ	ECT NAME		PURCHASE ORD	ER#		
7 7.388		Burning To	61e	m55267				
SAMPLERS (signature)			Y12		PROJECT LOCAT	ION		
2/24					•	,		
REMARKS					MPLE DISPOSAL INFO	DRMATION		
					Dispose after 30 da Return Samples Call for Instruction			
Sample #	Date/Time Sampled	Type of Sample	# of Jars	Lab Sample #	 Analyse Requeste 			
M55767 A	1/14/56 3:00 91	H20	1	73937	ce a n.			
	119/19 310 91	. 77 20	 /	-1217	CK CO PO.			
(West)								
M55767 B	"/14/96 = 3:00m	H20	,	73938	er cu n	ررح ، بر		
(EAST)								
SIGNATURE /		UNT NAME		COMPANY	Date	Time		
Cherry hed by:		D Thomps		ACW	11/15/56	8:52m		
Relinquished by:	KUR	= January	~~~	FEET	11/15/9			
received by:								

FORMS/COC

09/19/94

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

November 18, 1996

INVOICE # 96ACU1118-1 DUPLICATE COPY

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Burning Table, PO #M55267: Results of testing requested by Gerry Thompson, Project Manager for material submitted on November 15, 1996.

2 water samples analyzed for
Chromium, Copper, Nickel, and Zinc
using Method 6010 @ \$65 per sample

Amount Due \$130.00

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Beth M. Albertson, M.S. Bradley T. Benson Kelley D. Wilt 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044

November 18, 1996

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on November 15, 1996 from your Burning Table, PO #M55267 project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Kurt Johnson Chemist

keh Enclosures ACU1118R.DOC Sheet1